



## Probing on the Relationship between Students' Self-Confidence and Self-Efficacy while Engaging in Online Learning amidst COVID-19

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### Abstract

The onslaught of the Coronavirus-19 disease around the world has shaken the physical and mental well-being of the global citizenry. The student populace in particular faces added burdens and struggles in light of the pandemic due to the abrupt shift in learning modality and educational delivery to cope with the "new normal." Hence, this study aims to probe the relationship between self-confidence and self-efficacy among the randomly selected sixty Grade 12 students of the University of San Carlos, Cebu City, Philippines while engaging themselves in online learning amidst COVID-19 through a descriptive correlational study. Data were gathered online using valid and reliable 4-point adapted Likert-type survey questionnaires. Results revealed that both self-confidence ( $\bar{x} = 2.61$ ,  $SD = 0.84$ ), and self-efficacy ( $\bar{x} = 2.83$ ,  $SD = 0.80$ ) were described as high. Pearson's  $r$  correlation was also found to be significant,  $r(58) = .2144$ ,  $p = .000059$ ,  $p < 0.05$ , thus rejecting the null hypothesis and conclude that there is a moderately high positive correlation ( $r = 0.50$ ) between the levels of self-confidence and self-efficacy among the students while engaging in online learning. This means that students who have high belief in their own capacities are more likely to be more confident in themselves. It is recommended that schools should instill policies to augment students' self-confidence and self-efficacy levels to guarantee optimal learning outcomes despite the current setting. Future researchers may explore the same variables in public schools and far-flung areas to discover the conditional differences amidst the similarity of the shared experiences during the pandemic time.

## Introduction

The world is experiencing a global health crisis from the rising death tolls, deprivation of human interaction, and the upending of people's lives. According to the United Nations (2020), the current global circumstance is beyond just a health crisis, rather a human, economic, and social one. The coronavirus disease (COVID-19), deemed as a pandemic by the World Health Organization, continues to attack societies at the core from massive business shutdowns, employment loss, limited transportation, distribution of resources leading to scarcity of necessities, to the grassroots level of the mode of educational learning.

The pandemic poses significant threats to the educational sector in terms of the adaptation to educational modalities of instructional delivery, school operational activities, and policies. Schleicher (2020) contends that the pandemic has shed a light on the shortcomings of the current systems of education in place including access to apparatus needed for learning online, the environments needed to induce focused learning, and the disproportionate ratio between one's resources and needs. In this regard, educational institutions continue to persist

in providing quality education by providing online discussions. In turn, students might feel lacking when attending to academic tasks since not all are accustomed to the setting wherein lecturers explain academic material in an unorthodox manner. While there are applications for virtual interchange such as Zoom, Canvas, and Google Classroom to remedy this sudden shift of instructional method, these apps, though available, are not always readily accessible to all.

Akhtar (2008) defines self-efficacy as the belief which one possesses in one's abilities, specifically in terms of one's ability to meet challenges ahead of themselves and the ability to complete given tasks successfully. In the same manner, Dullas (2018) cites that self-efficacy is one's belief of being able to successfully execute and accomplish a certain task within their capabilities. In the domain of online learning, which Li & Lalani (2020) describe as the prevalent mode of learning due to the COVID-19 pandemic, self-efficacy has actively been given attention in educational psychology. Yokoyama (2019) stresses the role of self-efficacy in students' academic performance and believes it to be an influential factor for the enhancement of such. The role of self-efficacy in predicting student online learning outcomes is reinforced by Cussó-Calabuig et al. (2018), citing that self-efficacy in Information and Communications Technology (ICT) greatly impacts one's academic results in the online environment. Additionally, Alqurashi (2016) discussed that self-efficacy greatly applies to online education citing computer and internet self-efficacy among others as factors with most mileage in the domain. Alqurashi also emphasized the scarcity of the studies about self-efficacy in the online learning environment by citing: "research on self-efficacy in online environments is in its infancy". Hodges (2008) as his review arose from the needs of such.

With the emerging shift of paradigm, the level of self-efficacy among students seems to be highly affected. As students transition to full-time online learning as a protective measure against the coronavirus pandemic, many are still at a loss because they find it a new experience altogether (Key, 2020). Adaptation is expected to take place to maintain effective academic performance such as good grades and continued learning, but due to the inadequacies in the new learning system, students are hindered from being confident. Key maintains that going back to school in the virtual environment amid the pandemic can be filled with frustration, loneliness, and difficulty. Yet it can be overcome with one's belief in the self and the exertion of effort and willingness. A study by Wilde (2020) showed that individuals with low general self-efficacy found more difficulty in completing tasks compared to those with higher recorded levels. Those with low self-efficacy were more inclined to negatively compare themselves with others, restricting their potential to increase their self-efficacy levels.

Results of a study by Estira (2020), show that students are exceedingly motivated to learn online, however, cannot utilize online tools and self-efficacy in online communication. Estira cited that though students are acclimated to operating social media sites, they still do not have enough capability in using technological tools or software for educational purposes. Moreover, Estira emphasized that the students' socioeconomic status impacts their efficacy when it comes to distance learning for an increment in their family's monthly income results in an increase in the elements of computer/internet self-efficacy.

On the other hand, self-confidence as one's belief in their ability to do their best. It is considered as one's capacity to maximize self-faith to the farthest extent, to which is "best." It is defined as being aware of one's capabilities and believing in one's worth as an individual. Martin (2013) states that self-confidence has been highly linked to the improvement of academic performance. In this connection, Ballane (2019) argues that self-confidence has

been proven to be one of the most salient factors to the enhancement of academic performance especially within students who are undergoing transitions. Additionally, it has been found that students possessing higher levels of self-confidence tend to welcome challenges more and had a greater desire to learn. Additionally, Kaleci and Akleman (2019) find that one of the most fundamental goals in online learning is to guarantee that students reach the learning objectives set. They elaborate that knowledge on the subject alone is not sufficient for reaching such objectives. Rather, it is explained that students must attain an understanding of the subject matter and ensure comprehension of the online content through embodying self-confidence in online learning.

Additionally, Bjork et al., (2020) find that if one constantly views their experiences as successes, an increase in self-confidence is observed. Conversely, viewing experiences as failures leads to a decrease in self-confidence levels. Indeed, online learning poses threats to self-confidence as it could instill fear, shame, and disappointment. The majority of students had voiced out that the pandemic has greatly affected their self-confidence, especially towards academic performance. The students stressed that it is significantly harder to focus by merely staring at the screen for almost the entire day than partaking in classes within a physical setting where both teacher and classmates are present. For this reason, it is a struggle for most students as physical activities play a major role in their learning and it simply cannot be carried out online.

However, since self-efficacy centers on an individual's self-belief on a specific task, it is not tantamount to one's confidence as the former is more particular depending on one's objectives while the latter is more of an inherent trait. One's self-efficacy beliefs are directly dependent on one's specific goals (Artino, 2012). Briggs (2014) supports this citing that self-efficacy is centered on the interaction between a person and a task while subsequently, self-confidence is more of a personal characteristic.

As the new set of students who wish to continue their education try to cope with the new learning methods and environments, concerns may be raised regarding just how different the challenges they face now are compared to when traditional learning was still practiced. Their desire to adapt seems to greatly reduce their self-confidence, while their self-efficacy tends to adjust as they continue to respond to the new online learning demands. This has caused the researchers to determine any conceivable relationship between the two. The results of this study can likely give an assuring answer, which could enable most educational institutions to create a way to effectively adapt to the current situation. The researchers have identified the following research gaps: (1) ambiguity and confusion between both variables, (2) deficiency of literature on both variables in the online setting and COVID-19 context, (3) majority of environments of existing studies are tertiary levels, and (4) the scope of the current study is only limited to students studying in private schools.

Expectancy' as an individual's evaluation or judgment of their competence in various domains. According to the expectancy-value model, success-related decisions are motivated by a combination of factors such as an individual's expectations for progress and success, and how much they value the desired outcome of doing certain tasks. Expectancies and values interact to foresee significant results like commitment, continuing interest, and academic accomplishments. Other factors, including demographic attributes, stereotypes, prior involvements, and perceptions of others' beliefs and behaviors influence accomplishment-related results by implication through these expectancies and values. This model has generally been applied and utilized in the research in the field of education.

In the Social Learning Theory, Bandura (1977) coincides with behaviorist learning theories and traditional molding and training including two (2) significant concepts: mediating measures happen between stimuli and reactions and the idea that behavior is assimilated from the environment via observational learning. The social learning theory can be considered as the bridge between the cognitive approach and traditional learning theory because it focuses on how cognition associates with learning.

This paper aimed to determine the relationships between the level of self-efficacy and self-confidence in online learning among Grade 12 Senior High School students enrolled at the University of San Carlos (USC), Cebu City, Philippines during the Academic Year 2020-2021. The researchers hypothesized that there was no significant correlation between the two variables. This study was limited only to the Senior High School students of USC both from the North and South Campus. Its significant contribution to the students was to shed light on how to face difficulties given the new learning mode. Teachers could also assess students' performance based on these difficulties. The parents could also benefit from this study as this can give deeper understanding on the needs of their children to garner support. Lastly, future researchers may use the findings and recommendations of this study to further validate the results.

## Method

This study utilized a quantitative non-experimental descriptive correlational research design (Babbie, 2010). The research provided a glimpse of the current state of affairs while it sought to identify the relationship between the level of self-confidence and self-efficacy in learning online among sixty Grade 12 Senior High School Students. Respondents were chosen through simple stratified non-proportionate random sampling from the Humanities and Social Sciences (HumSS), Arts and Design (A&D), Accountancy, Business, and Management (ABM) and Science, Technology, Engineering Mathematics (STEM) strands of the North School (NS) and South School (SS) of the University of San Carlos, Cebu City, Philippines. The university is a private sectarian school managed by the Society of the Divine Word (SVD), a missionary religious congregation. Table 1 presents the total respondents of the study.

Table 1. Respondents of the study

Strands	F	rf (%)	Gender	f	rf (%)	Age	f	rf (%)
HUMSS	15	25 %	Female	44	73.33%	17	14	23.33%
STEM	20	33.33 %	Male	16	26.67%	18	43	71.67%
ABM	15	25 %				19	2	3.33%
A and D	10	16.67 %				20	1	1.67%
<b>Total (n)</b>	<b>60</b>	<b>100 %</b>		<b>60</b>	<b>100%</b>		<b>60</b>	<b>100%</b>

Total Number of students: SS =40; NS =20; SHS =60

Two adapted 4-point Likert-type survey questionnaires were employed to gather data namely the Online Learning Self-Efficacy Scale (OLSES) by Zimmerman and Kulikowich (2016) and the student Satisfaction and Self-Confidence in Learning (SCLS) scale by Jeffries and Rizzolo (2006) with 0.987 and 0.77-0.85 Cronbach's alpha reliability coefficients respectively. The tools, although were already valid and reliable, still went through pilot testing to fit the current setting and respondents via Google Forms, which was the same method utilized for the final data gathering procedures. This is done to ensure the reliability

of the instrument since it is considered as the captain of the ship and it should be of good quality to produce an accurate, valid, and reliable result (Sorono-Gagani & Bonotan, 2017). The pilot test procured reliability coefficients of 0.83 and 0.73 for self-efficacy and self-confidence which means good and acceptable respectively according to George and Mallery (2012).

The data gathered were analyzed using simple percentage, mean, and standard deviation. Pearson's  $r$  was used to determine the relationship between the self-efficacy and self-confidence levels among the respondents since they were continuous and interval variables. The measurement scale of the Likert-type questionnaire was primarily ordinal but was converted and treated as a continuous interval to determine the descriptive levels as very low, low, high, and very high.

## Results and Discussion

Based on the gathered data, table 2 showed the extent of students' self-confidence while engaging in online learning amidst COVID-19.

Table 2. The Level of Self-Confidence in Online Learning

Statements	Mean	SD	Description
5. It is my responsibility as a student to learn what I need to know from the online courses.	3.18	0.87	High
14. My teachers effectively use resources to aid in online learning.	2.82	0.79	High
4. My teachers did not use helpful resources to aid in online learning.	2.78	0.92	High
6. I know how to get help when I do not understand the online courses.	2.78	0.88	High
12. The content provided in the online courses are unnecessary.	2.78	0.85	High
10. The instructor effectively tells me what I need to learn from the online course.	2.70	0.65	High
7. I know how to get help when I am experiencing technical difficulties.	2.68	0.95	High
13. I am not acquiring the necessary skills from the online course.	2.67	0.88	High
2. I am confident that the content covered is critical and necessary.	2.65	0.78	High
3. I am confident that I am acquiring the skills I can apply in the future from the online classes.	2.53	0.81	High
8. I cannot use the online courses to acquire the necessary skills.	2.48	0.95	Low
9. It is the instructor's responsibility to tell me what I need to learn from the online course.	2.45	0.89	Low
1. I am confident that I am mastering the online class content.	2.43	0.74	Low
11. I am not mastering the online content.	2.22	0.80	Low
15. I often face difficulty in understanding online content alone.	1.98	0.85	Low
Overall Mean Rating	2.61	0.84	High

Interval: 1-1.75 (Very Low); 1.76-2.5 (Low); 2.51-3.25 (High); 3.26- 4 (Very High)

The results showed that a majority of the items were rated high by the students. The highest-rated item entailed the students' acknowledgment of their responsibility to set learning goals and objectives in online classes for themselves which was rated *high* ( $\bar{x}$ = 3.18, SD= 0.97). From this, the researchers draw that the students possess adept awareness of their due responsibilities even within online classes.

Furthermore, a few of the items which were rated lowest among the list include the students' confidence in content mastery which was rated *low* ( $\bar{x}$ = 2.43, SD= 0.74), the usability of online content in the acquisition of necessary skills at *low* ( $\bar{x}$ = 2.22, SD= 0.80), and the extent of the difficulties the students face in trying to understand online class content by themselves which was also rated *low* ( $\bar{x}$ = 1.98, SD= 0.85). This means that although the students are not confident that they are mastering the content, they still feel a sense of ease in trying to understand these even by themselves.

Overall, Table 2 presents how the Grade 12 Senior High School students measure in terms of self-confidence in online learning. As shown, the students' overall level of self-confidence in online learning is rated *high* ( $\bar{x}$ = 2.61, SD= 0.84). According to the University of South Florida Counseling Center (2020), high levels of self-confidence entails one's trust and acceptance in themselves and the possession of self-control in their own lives. As the overall rating of the students' self-confidence is high, it can be said that the students relatively trust and accept themselves when it comes to online learning. Additionally, it can be drawn from the results that the students have self-control in their online learning activities despite COVID-19.

However, these results are contrary to research findings regarding the psychological effects of COVID-19 on others. Hannan et al., (2020) found that the incidence of the rise of COVID-19 cases has cost not only millions of lives but innumerable damages to each individual's mental health. Although the Grade 12 students garnered a collective overall mean rating of high, there are seven (7) items that received a rating of low, which is 47% percent of the total items within the questionnaire. Despite this, the majority of the items garnered a rating of high which impacted the overall rating and caused it to also produce a high reading. Table 3 presents the level of self-efficacy among the respondents.

Table 3. The Level of Self-Efficacy in Online Learning

Statements	Mean	SD	Description
4. Submit assignments to an online dropbox	3.32	0.65	Very high
8. Learn to use new technology efficiently	3.23	0.67	High
7. Complete all assignments on time	3.05	0.83	High
5. Overcome technical difficulties on my own.	3.03	0.82	High
1. Navigate online courses efficiently.	3.03	0.61	High
2. Communicate with my instructors via e-mail	2.93	0.80	High
14. Communicate using asynchronous technologies	2.92	0.81	High
15. Meet deadlines with very few reminders	2.9	0.84	High
12. Communicate with groupmates effectively	2.87	0.91	High
3. Communicate effectively with technical support	2.78	0.78	High
10. Learn without being in the same room as the instructor	2.73	0.78	High
11. Learn without being in the same room as other students	2.7	0.87	High

6. Manage time effectively	2.57	0.95	High
9. Learn without the instructor.	2.52	1.00	High
13. Use the school's online library resources	1.80	0.68	Low
Overall Mean Rating	2.83	0.80	High

Interval: 1-1.75 (Very Low); 1.76-2.5 (Low); 2.51-3.25 (High); 3.26- 4 (Very High)

The results presented that an item entailing the students' ability to submit requirements in an online drop box garnered the highest rating which is *very high* ( $\bar{x}$ = 3.32, SD= 0.64) from which the researchers can deduce that the students found online assignment submission to be exponentially easy. Moreover, contrary to this, the item regarding the usability of the school's online library resources was rated the lowest and was the only item found at *low* ( $\bar{x}$ = 1.8, SD= 0.68) meaning that the students were unable to maximize the usage of the school's online library expedients.

In totality, the students' procured overall mean rating showed that the level of self-efficacy in learning online of the selected population is rated *high* ( $\bar{x}$ = 2.83, SD= 0.80). Self-efficacy is defined as one's belief in their abilities to produce certain levels of performance towards specific tasks (Bandura, 1994). As the students present with an overall high rating of self-efficacy, it can be drawn that they possess prominent levels of such which believes could enhance human accomplishment and well-being in multiple ways. Cognizant with the abovementioned results, the students have been observed to hold a belief in themselves even now in the advent of the shift in learning modality towards online means as a result of the pandemic.

Notwithstanding the results above, various studies show that otherwise is the case for students of other areas. In evaluation of the levels of self-efficacy among Najran University students, it was determined that the majority possessed moderate to low levels of self-efficacy in dealing with the COVID-19 pandemic. The study found that 45.9% of students had moderate while 22.9% had low levels of self-efficacy. The findings of the research of greatly contrast that of the current study seeing as the Grade 12 Senior High School students have been found to possess high self-efficacy levels.

Estira (2020) studied the business administration students' readiness with regards to online distance learning and found that the entirety of the respondents is eager to learn online, just not highly competent in making use of various online tools or platforms in learning and communicating. Though the respondents were engaged in different social networking sites, they are still unable to apply this in their education. In terms of the relationship between the two variables, Table 4 presents the correlation between the levels of self-confidence and self-efficacy among the respondents who engage themselves in online learning.

Table 4. The Correlation between Levels of Self-Confidence and Self-Efficacy in Learning Online Amidst COVID-19

Correlations			
		Self-Confidence	Self-Efficacy
Self-Confidence	Pearson Correlation	1	.496**
	Sig. (2-tailed)		0.000
Self-Efficacy	Pearson Correlation	.496**	1
	Sig. (2-tailed)	0.000	
N = 60. **. Correlation is significant at the 0.01 level (2-tailed).			



The correlation between the levels of self-confidence and self-efficacy while learning online amidst the pandemic was found to be significant,  $r(58) = .2144$ ,  $p = .000059$ ,  $p < 0.05$  at  $\alpha = 0.05$ . Hence, the researchers reject the null hypothesis stating there is no significant relationship, and conclude with at least 95% confidence that there is a moderately high positive correlation ( $r = 0.50$ ) between the levels of self-confidence and self-efficacy.

Both the Expectancy Value Theory of Eccles et al., (1992) the Social Learning Theory of Bandura (1977) were employed and exemplified in the current study based on its findings. Both theories were used to determine not only the effectiveness of the teaching methods and pedagogies of the teachers but also whether students garnered a holistic understanding and comprehension of the provided subject matters online. Furthermore, in line with the Expectancy Value Theory, the researchers have found that if students can grasp the expectations they have set for themselves in a particular task, in turn, they can discern their self-efficacy levels. While in connection to the Social Learning Theory, the researchers were able to determine whether the population was able to gain self-confidence through their interactions with others even within the online setting coupled with their methods and cognitive approaches. In summary, both theories greatly contributed to the research process and were successfully used as evidence to support the study's findings.

## Conclusion

Based on the findings of the study, there is a significantly moderately high positive correlation ( $r = 0.50$ ) between the levels of self-confidence and self-efficacy in learning online amidst the pandemic. This is supported by Marra et al., (2007) which found out that the higher the self-confidence, the higher the self-efficacy as well. This further means that students who are more confident despite the struggles and challenges brought by the pandemic are inclined to possess higher levels of self-efficacy as well.

The very high computed value of  $r$  implies a very strong relationship between self-confidence and self-efficacy among sixty (60) individuals. From the study being shown, the results imply that students who have high confidence in themselves also show a high level of self-efficacy. The implications of the study are important in connotation to the current educational set-up, in which online classes are used as a protective measure in the light of the COVID-19 pandemic. These positive results from the experiences of the individuals can surpass all the pessimism, hurdles, anxieties, hesitations, and struggles the students face in adjusting to the new normal way of learning.

The researchers recommend that there be programs in place to augment and amplify each student's self-confidence and self-efficacy levels in learning online amidst COVID-19 so that both students and teachers alike may benefit. The researchers also recommend that future researchers explore further the research gaps identified in this study being that it only encompasses a private institution. Further studies could examine public school students and students from far-flung areas of the country to determine whether there are significant differences among their levels of self-confidence and self-efficacy in learning online amidst COVID-19. The researchers believe that as this change is sudden and abrupt, the findings of the current study have proven that it may be remedied by maintaining heightened levels of both self-confidence and self-efficacy to ensure optimal learning outcomes within the virtual learning environment now in the pandemic setting.

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